

Table 3
Origin-Destination Trips During the AM Peak Hours (7:00 AM - 9:00 AM)
As Percentage of Exit Volumes

		DESTINATIONS									
ORIGINS	LOCATION	M Street Eastbound	Key Bridge Outbound	Whitehurst Freeway Eastbound	Reservoir Rd Eastbound	Nebraska Av Eastbound	Dalecarlia Pkwy Northbound	MacArthur Blvd Northbound	Northbound Clara Barton Pkwy	Chain Bridge Outbound	Internals
	M Street Westbound at Key Bridge	0.0%	0.5%	0.9%	1.1%	0.9%	0.5%	1.7%	0.0%	1.5%	1.2%
	Key Bridge Inbound Left Turns	8.1%	0.0%	4.1%	3.2%	26.9%	9.3%	10.4%	0.0%	4.0%	7.4%
	Westbound Whitehurst Freeway	14.7%	17.4%	0.0%	11.2%	21.7%	16.3%	14.9%	0.0%	10.7%	12.3%
	Westbound Reservoir Road	1.1%	1.9%	1.4%	0.0%	1.7%	2.7%	4.1%	0.0%	4.1%	0.8%
	Westbound Nebraska Avenue	3.9%	10.1%	7.4%	5.2%	0.0%	7.6%	12.7%	0.0%	23.9%	15.0%
	Southbound Dalecarlia Pkwy	5.4%	7.0%	10.2%	7.6%	4.1%	0.0%	11.4%	0.0%	15.7%	8.1%
	Southbound MacArthur Blvd	9.5%	8.3%	12.7%	15.2%	4.5%	6.6%	0.0%	0.0%	7.3%	12.9%
	Southbound Clara Barton Pkwy	23.8%	25.6%	42.4%	24.2%	10.0%	14.3%	15.6%	0.0%	16.6%	12.2%
	Inbound Chain Bridge	23.2%	11.7%	11.5%	22.1%	23.1%	26.3%	18.8%	0.0%	0.0%	30.1%
	Internals	10.2%	17.6%	9.4%	10.3%	7.1%	16.4%	10.4%	0.0%	16.1%	N/A
	TOTAL EXIT VOLUME	703	777	3563	712	2383	1024	1051	0	1146	1619

Note: 1. The Volumes shown on the table are for a two hour period.
2. N/A = not applicable

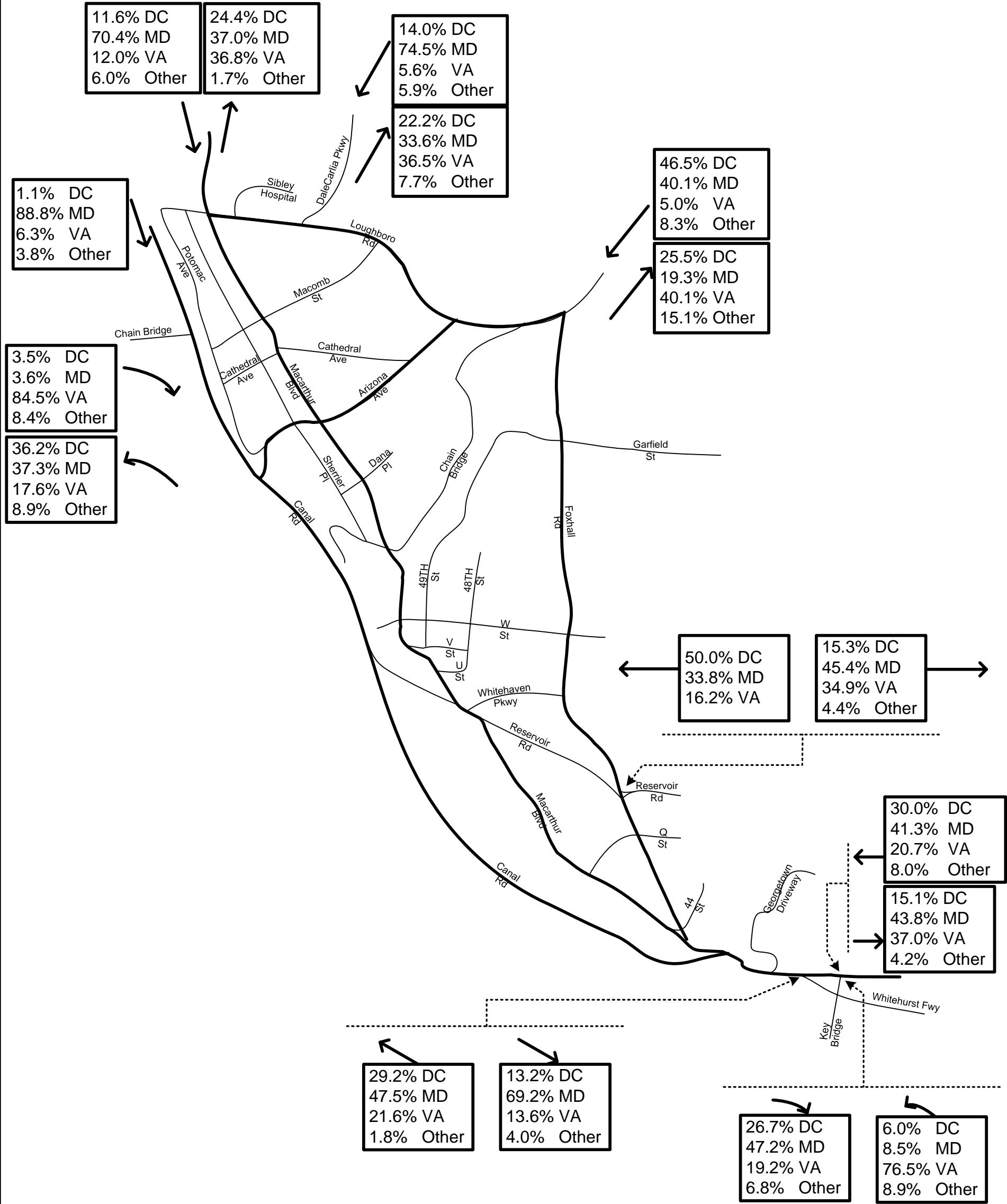


Table 4
Origin-Destination Trips During the PM Peak Hours (4:00 PM - 6:00 PM)

		DESTINATIONS									
ORIGINS	LOCATION	M Street Eastbound	Key Bridge Outbound	Whitehurst Freeway Eastbound	Reservoir Rd Eastbound	Nebraska Av Eastbound	Dalecarlia Pkwy Northbound	MacArthur Blvd Northbound	Northbound Clara Barton Pkwy	Chain Bridge Outbound	Internals
	M Street Westbound at Key Bridge	0	43	20	9	42	41	21	149	74	21
	Key Bridge Inbound Left Turns	26	0	59	7	347	77	60	235	115	47
	Westbound Whitehurst Freeway	84	391	0	29	244	179	148	1193	219	82
	Westbound Reservoir Road	10	75	80	0	29	53	82	153	185	4
	Westbound Nebraska Avenue	26	203	165	17	0	83	128	127	641	92
	Southbound Dalecarlia Pkwy	8	97	106	26	112	0	108	77	421	19
	Southbound MacArthur Blvd	23	153	260	55	87	76	0	63	278	24
	Southbound Clara Barton Pkwy	0	0	0	0	0	0	0	0	0	0
	Inbound Chain Bridge	16	138	76	65	459	274	117	0	0	38
	Internals	44	76	129	92	302	172	47	31	75	N/A

- Note: 1. The Volumes shown on the table are for a two hour period.
2. The trips shown on this table include adjustments to the raw matching data to account for license plates that were not adequately documented in the data collection process and license plates that were not adequately matched in the database matching process.
3. N/A = Not applicable

Table 5
Origin-Destination Trips During the PM Peak Hours (4:00 PM - 6:00 PM)
As Percentage of Exit Volumes

		DESTINATIONS									
ORIGINS	LOCATION	M Street Eastbound	Key Bridge Outbound	Whitehurst Freeway Eastbound	Reservoir Rd Eastbound	Nebraska Av Eastbound	Dalecarlia Pkwy Northbound	MacArthur Blvd Northbound	Northbound Clara Barton Pkwy	Chain Bridge Outbound	Internals
	M Street Westbound at Key Bridge	0.0%	3.6%	2.2%	3.1%	2.6%	4.3%	3.0%	7.3%	3.7%	6.3%
	Key Bridge Inbound Left Turns	10.9%	0.0%	6.6%	2.5%	21.4%	8.1%	8.4%	11.6%	5.7%	14.3%
	Westbound Whitehurst Freeway	35.5%	33.2%	0.0%	9.6%	15.1%	18.8%	20.8%	58.8%	10.9%	25.1%
	Westbound Reservoir Road	4.2%	6.4%	8.9%	0.0%	1.8%	5.5%	11.5%	7.6%	9.2%	1.3%
	Westbound Nebraska Avenue	11.1%	17.2%	18.4%	5.6%	0.0%	8.7%	18.0%	6.3%	31.9%	28.0%
	Southbound Dalecarlia Pkwy	3.5%	8.3%	11.9%	8.8%	6.9%	0.0%	15.1%	3.8%	21.0%	5.9%
	Southbound MacArthur Blvd	9.6%	13.0%	29.1%	18.3%	5.3%	8.0%	0.0%	3.1%	13.8%	7.4%
	Southbound Clara Barton Pkwy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Inbound Chain Bridge	6.7%	11.8%	8.5%	21.5%	28.3%	28.7%	16.5%	0.0%	0.0%	11.7%
	Internals	18.6%	6.5%	14.4%	30.6%	18.6%	18.0%	6.6%	1.5%	3.7%	N/A
TOTAL EXIT VOLUME		237	1176	895	300	1622	956	711	2028	2008	327

Note: 1. The Volumes shown on the table are for a two hour period.
2. N/A = Not applicable

- The most used entry roadway during the PM peak period is the Whitehurst Freeway.
- The most used exit roadways during the PM peak period are the Clara Barton Parkway and the Chain Bridge.
- The percentage of internally generated trips at the exit points ranges from two to 31 percent for the various exit roadways.
- The most used route to traverse the study area is used by vehicles entering on the Whitehurst Freeway and exiting via Clara Barton Parkway.
- Roads in the study area are being used for commute trips from Virginia origins to Virginia destinations. For example, 12 percent of the vehicles traveling to Virginia via the Key Bridge enter the study area via the Chain Bridge.
- The number of vehicles exiting the study area via MacArthur Boulevard is approximately one-third the number of vehicles that exit via Clara Barton Parkway.
- As shown in Figure 13, at all the study area exit roadways there were more Virginia or Maryland license plates than license plates from the District of Columbia, with the exception of Reservoir Road. At this entry point, there were more District of Columbia license plates than license plates from any other jurisdiction.
- Almost one-third of vehicles exiting the study area during the PM peak period via MacArthur Boulevard have a Virginia license plate.
- At all the study area entry roadways there were more Virginia or Maryland license plates than license plates from the District of Columbia.

SAFETY

In order to assess safety conditions in the study area, the Study Team obtained accident data from the District Department of Transportation (DDOT) for each of the five corridors, for the years 1997 through 1999. As the information summarized on Table 6 indicates, the intersection of Canal Road and Arizona Avenue is the location with the largest number of accidents in the study area. Rear end and side-swipe were the most prevalent type of accidents at this intersection. This indicates that enhancements to signing and signalization at this location could improve the safety of traffic operations.

The intersections of Canal Road with Foxhall Road and with Reservoir Road ranked second and third in terms of number of accidents between 1997 and 1999. The high number of accidents on Canal Road can be attributed in part to the reversible lane operation and the high speed at which vehicles travel on this roadway. Two of the accidents at Canal Road and Reservoir Road involved fixed objects. The Study Team noticed safety deficiencies at this intersection that can be eliminated with the implementation of proposed improvements. The recommendations are described in the Issues and Recommended Improvements section of this document.